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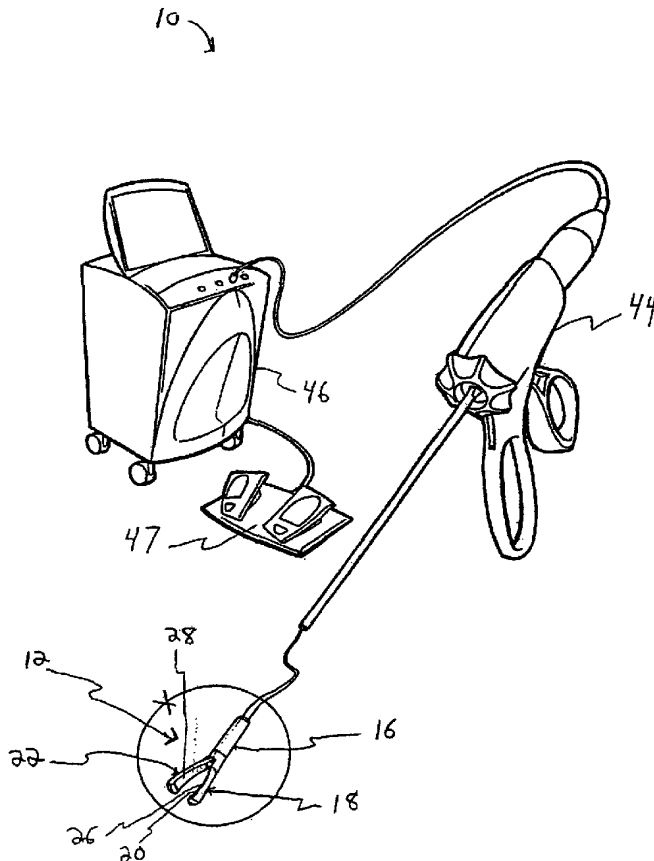
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(54) Title: METHOD FOR AIMING ULTRASOUND FOR MEDICAL TREATMENT



(57) Abstract: A method for ultrasound medical treatment of a patient. An end effector is obtained having an ultrasound medical-treatment transducer assembly (20). The assembly is aimed to focus ultrasound energy at a desired focal zone of patient tissue. The assembly is activated to emit ultrasound energy sufficient to achieve a temperature increase in the patient tissue essentially without medically affecting the patient tissue. An actual focal zone of patient tissue having a temperature increase is detected from reflected ultrasound energy. Any error between the desired focal zone and the actual focal zone is corrected for. The patient tissue is medically treated with ultrasound using the assembly. In one example, the ultrasound medical-treatment transducer assembly is an ultrasound imaging and medical-treatment transducer assembly. In one variation, the end effector is inserted into the patient. In another variation, the end effector remains outside the patient.



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INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :A61B 17/22

US CL :600/439

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 600/439; 601/2-4

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST: ultrasound, temperature, focal zone, probe, endoscope, catheter

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 5,769,790 A (WATKINS et al.) 23 June 1998, see col. 2, lines 17-35 and col. 6, lines 17-41.	1-9 ----- 10-13
Y	US 5,895,356 A (ANDRUS et al.) 20 April 1999, see col. 7, lines 11-26 and col. 9, lines 54-62.	10-13
Y	US 6,083,159 A (DRISCOLL, JR et al.) 04 July 2000, see col. 7, lines 10-21.	10-13

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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